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Chaudhri et al.

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(54) **QUIET HOURS FOR NOTIFICATIONS**

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CPC ***G06F 9/4421*** (2013.01); ***G06F 3/016*** (2013.01); ***G06F 3/048*** (2013.01); ***H04M 1/72566*** (2013.01); ***H04M 1/72572*** (2013.01); ***H04M 19/045*** (2013.01)

(58) **Field of Classification Search**
CPC H04M 19/04; H04M 1/72519
USPC 455/567, 569.2, 570, 404.2, 455/414.1–414.2, 456.1, 456.3, 455/456.4–456.5; 379/179, 252, 379/373.01–373.04, 374.03
See application file for complete search history.

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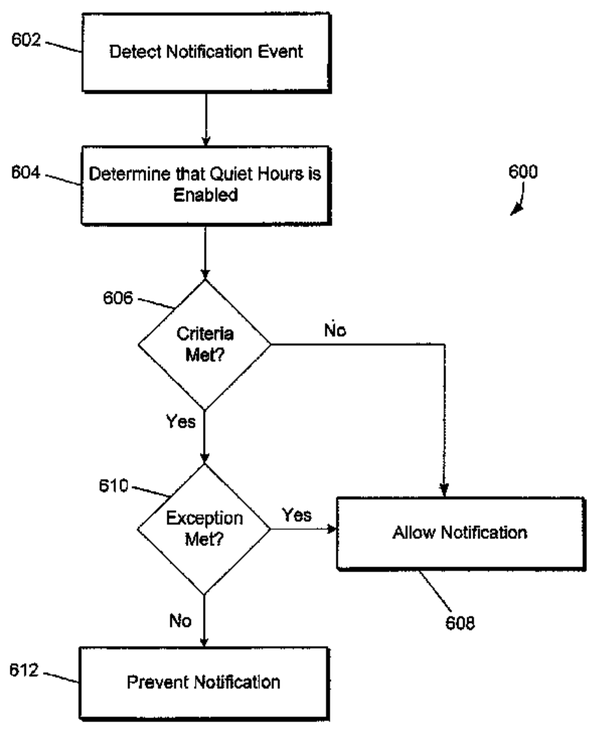
(57) **ABSTRACT**

In some implementations, a computing device can be configured to automatically turn off notifications when generating a notification would cause a disturbance or be unwanted by a user. The device can be configured with quiet hours during which notifications that would otherwise be generated by the computing device can be suppressed. In some implementations, quiet hours can be configured as a time period with a start time and an end time. In some implementations, quiet hours can be derived from application data. For example, calendar data, alarm clock data, map data, etc. can be used to determine when quiet hours should be enforced. In some implementations, the device can be configured with exceptions to quiet hour notification suppression. In some implementations, the user can identify contacts to which the quiet hours notification suppression should not be applied.

24 Claims, 9 Drawing Sheets



(51) **Int. Cl.**

H04M 11/04	(2006.01)
H04M 3/42	(2006.01)
H04M 13/00	(2006.01)
H04M 3/00	(2006.01)
G06F 9/44	(2006.01)
G06F 3/01	(2006.01)
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H04M 19/04	(2006.01)
H04M 1/725	(2006.01)

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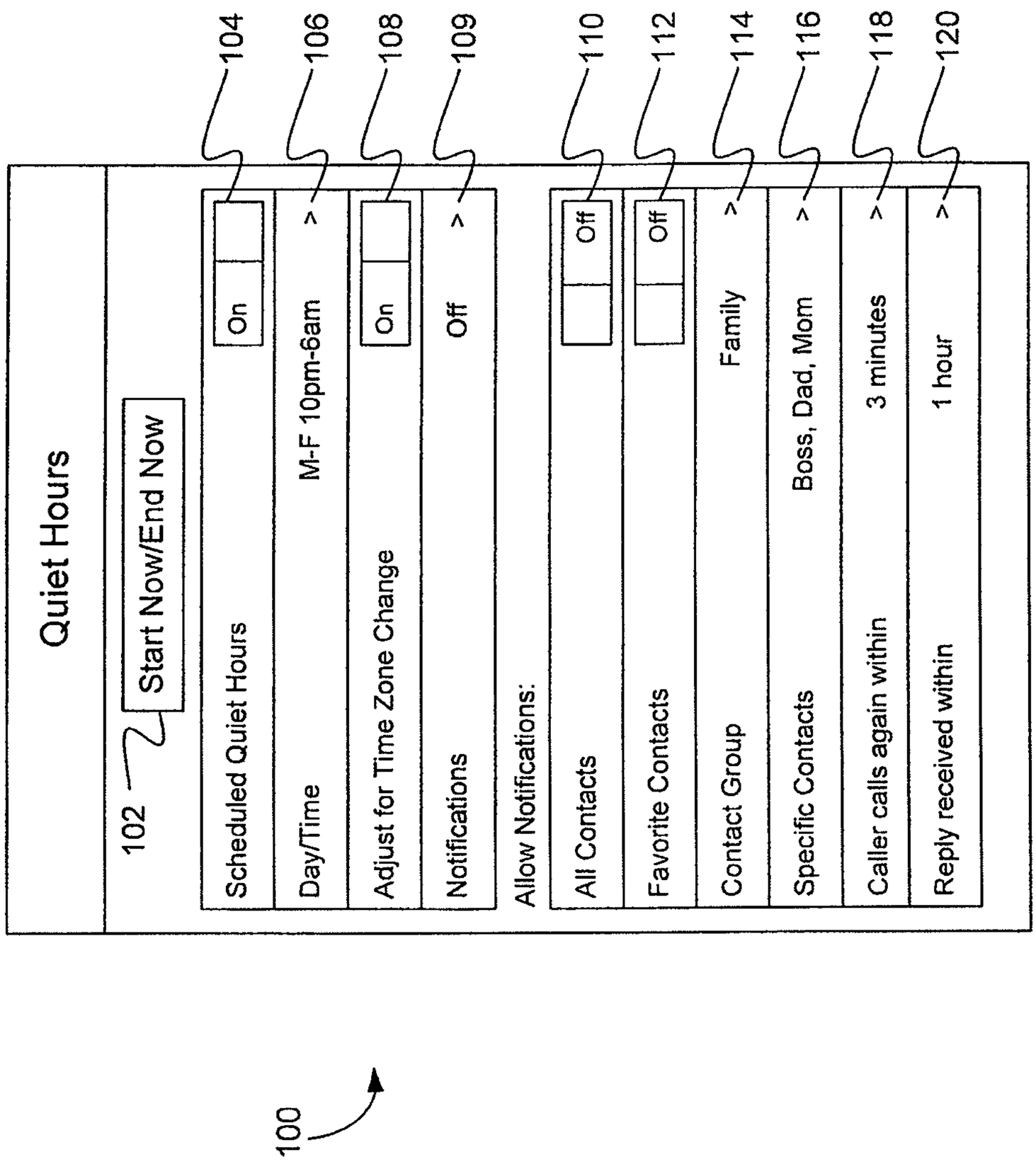
Quiet Hours
102
Start Now/End Now
Scheduled Quiet Hours
On
Day/Time
M-F 10pm-6am
Adjust for Time Zone Change
On
Notifications
Off
Allow Notifications:
All Contacts
Off
Favorite Contacts
Off
Contact Group
Family
Specific Contacts
Boss, Dad, Mom
Caller calls again within
3 minutes
Reply received within
1 hour
104
106
108
109
110
112
114
116
118
120
100

FIG. 1A

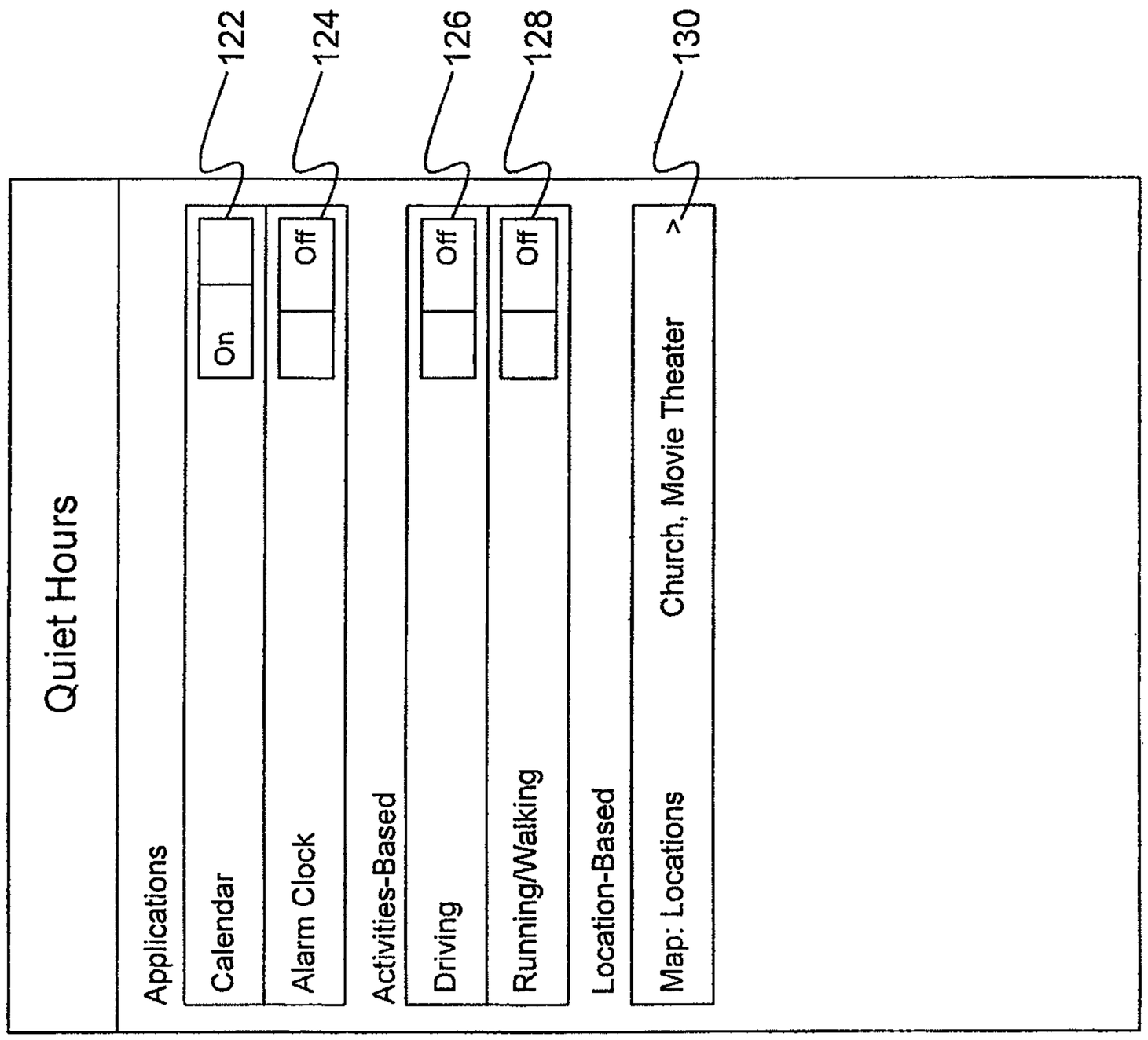
100
Quiet Hours
Applications
Calendar
On
Alarm Clock
Off
Activities-Based
Driving
Off
Running/Walking
Off
Location-Based
Map: Locations
Church, Movie Theater
>
122
124
126
128
130

FIG. 1B

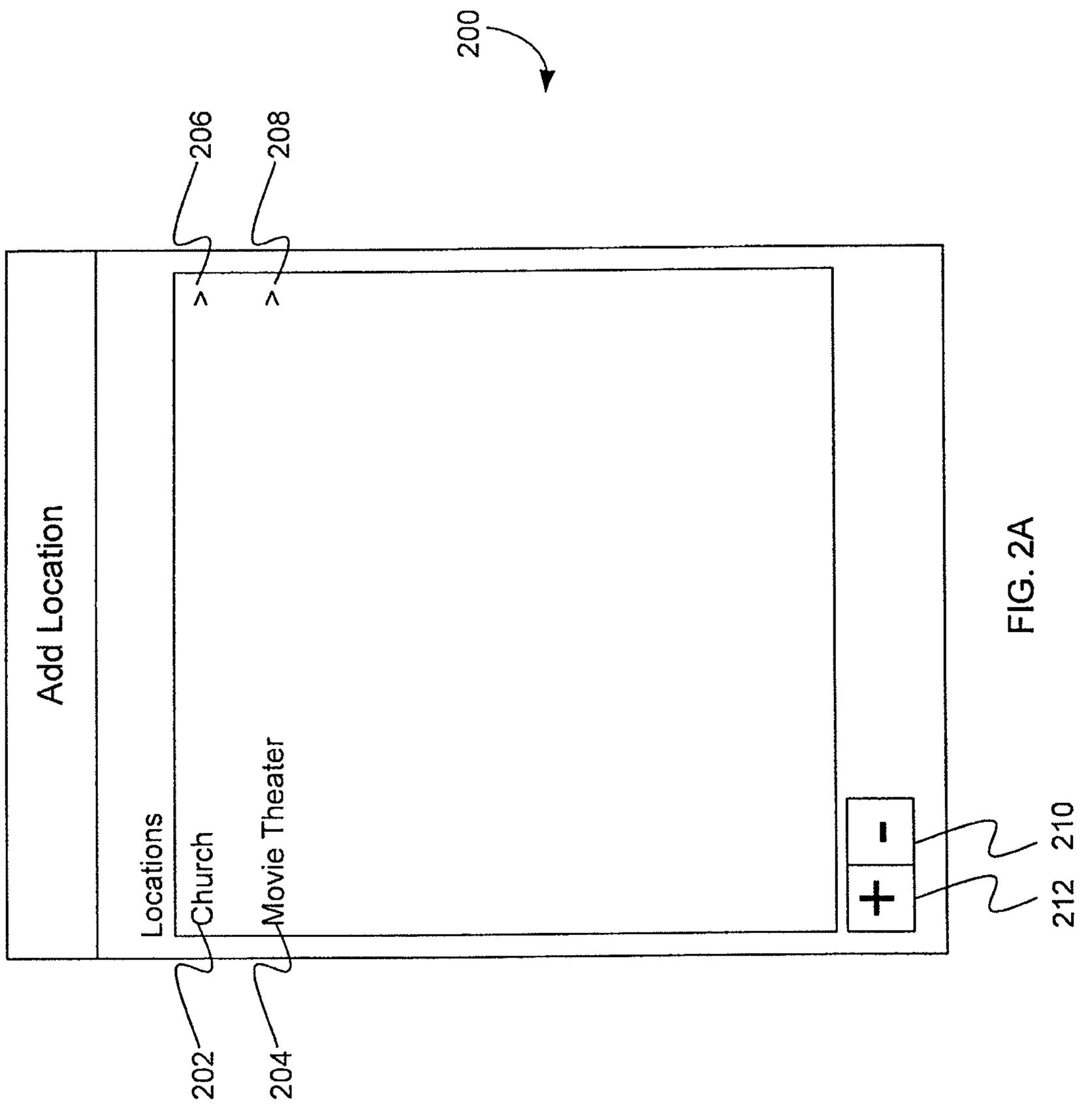
200
206
208
Add Location
Locations
Church
Movie Theater
+
-
202
204
210
212

FIG. 2A

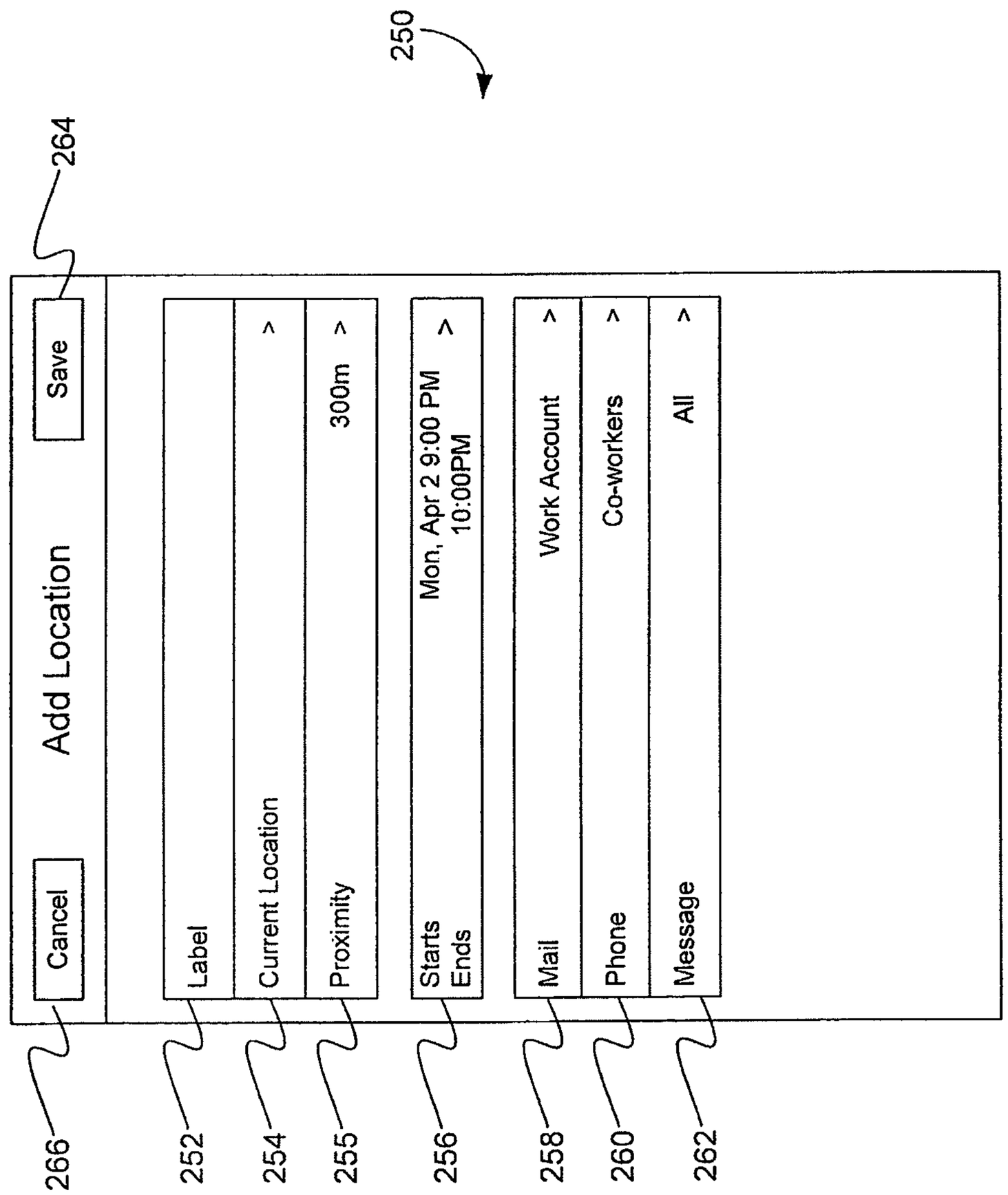
250
264
Cancel
Add Location
Save
Label
Current Location >
Proximity 300m >
Starts Mon, Apr 2 9:00 PM >
Ends 10:00PM
Mail Work Account >
Phone Co-workers >
Message All >
266
252
254
255
256
258
260
262

FIG. 2B

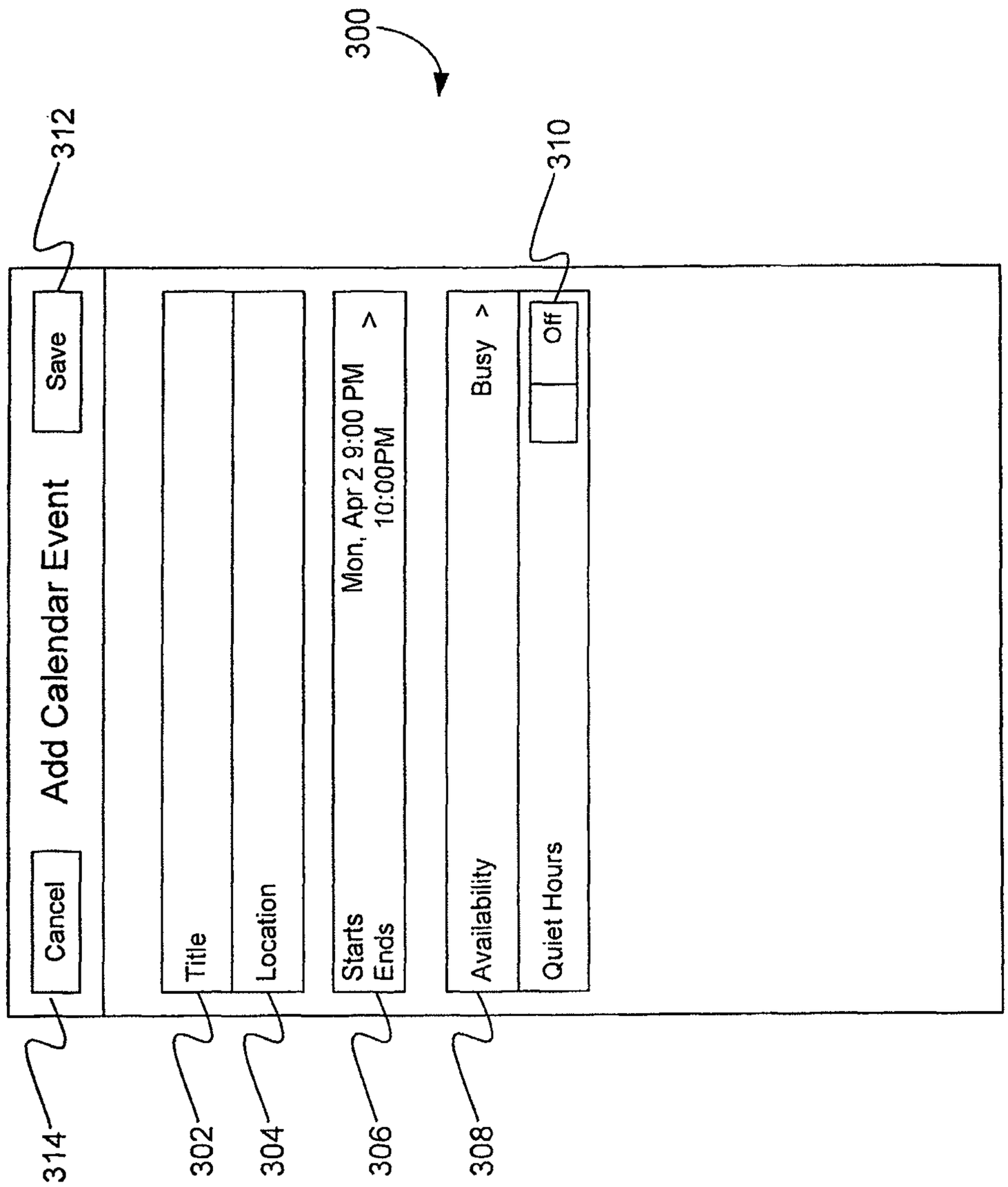
300
312
310
Cancel
Add Calendar Event
Save
Title
Location
Starts
Mon, Apr 2 9:00 PM
Ends
10:00PM
Availability
Busy
Quiet Hours
Off
314
302
304
306
308

FIG. 3

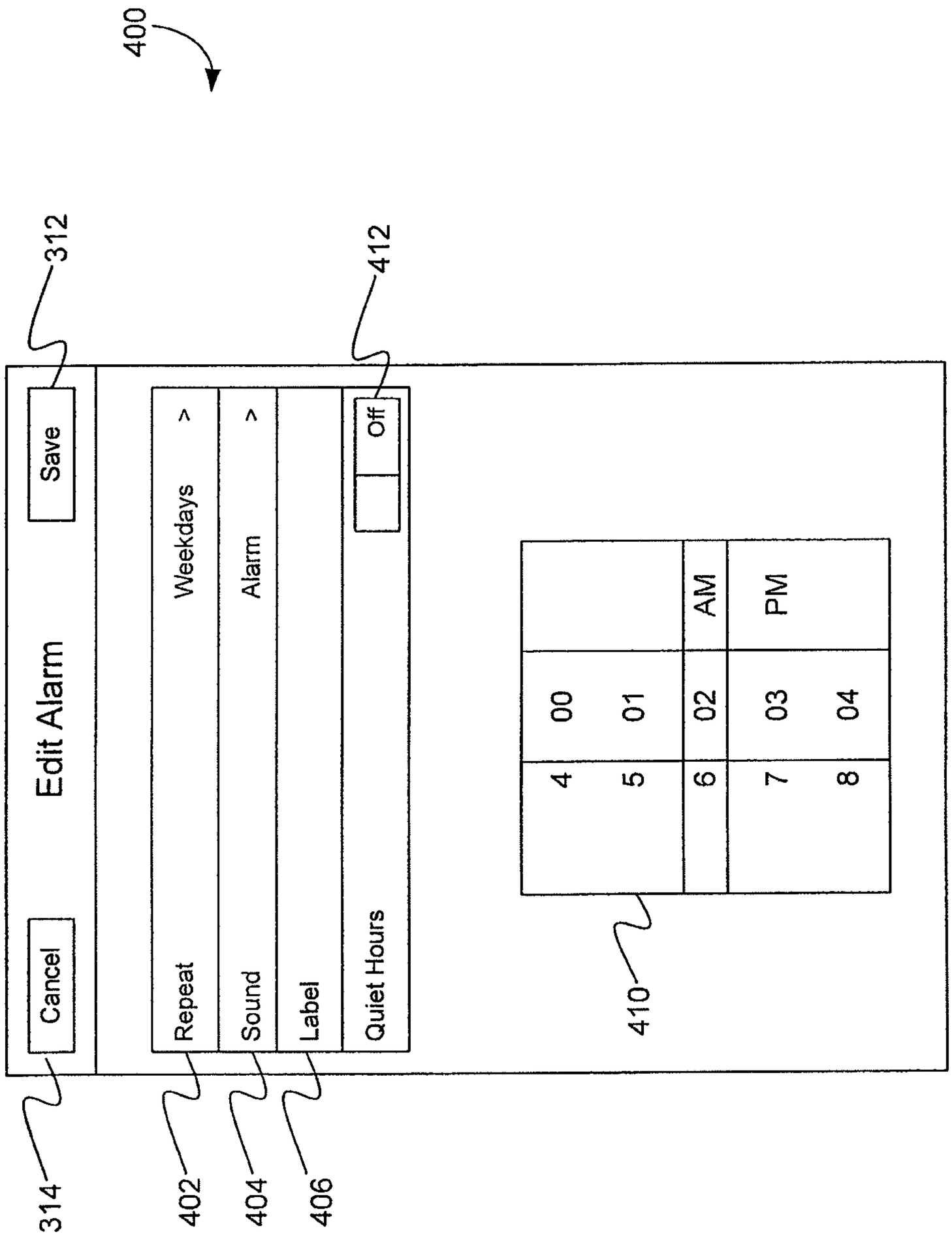
400
312
Save
Edit Alarm
Cancel
Weekdays >
Alarm >
Repeat
Sound
Label
Quiet Hours
Off
412
00
01
02
03
04
4
5
6
7
8
AM
PM
410
314
402
404
406

FIG. 4

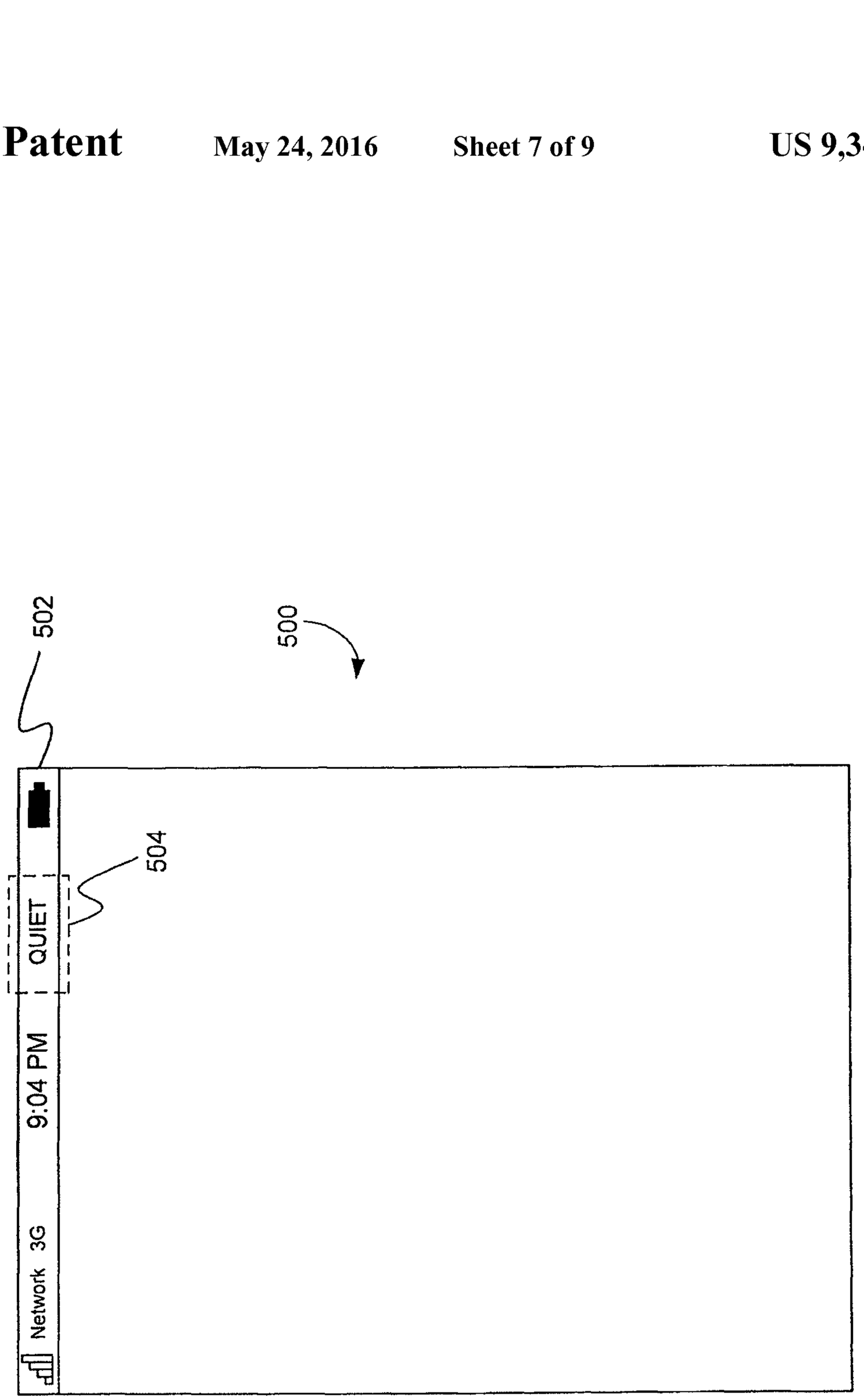

FIG. 5

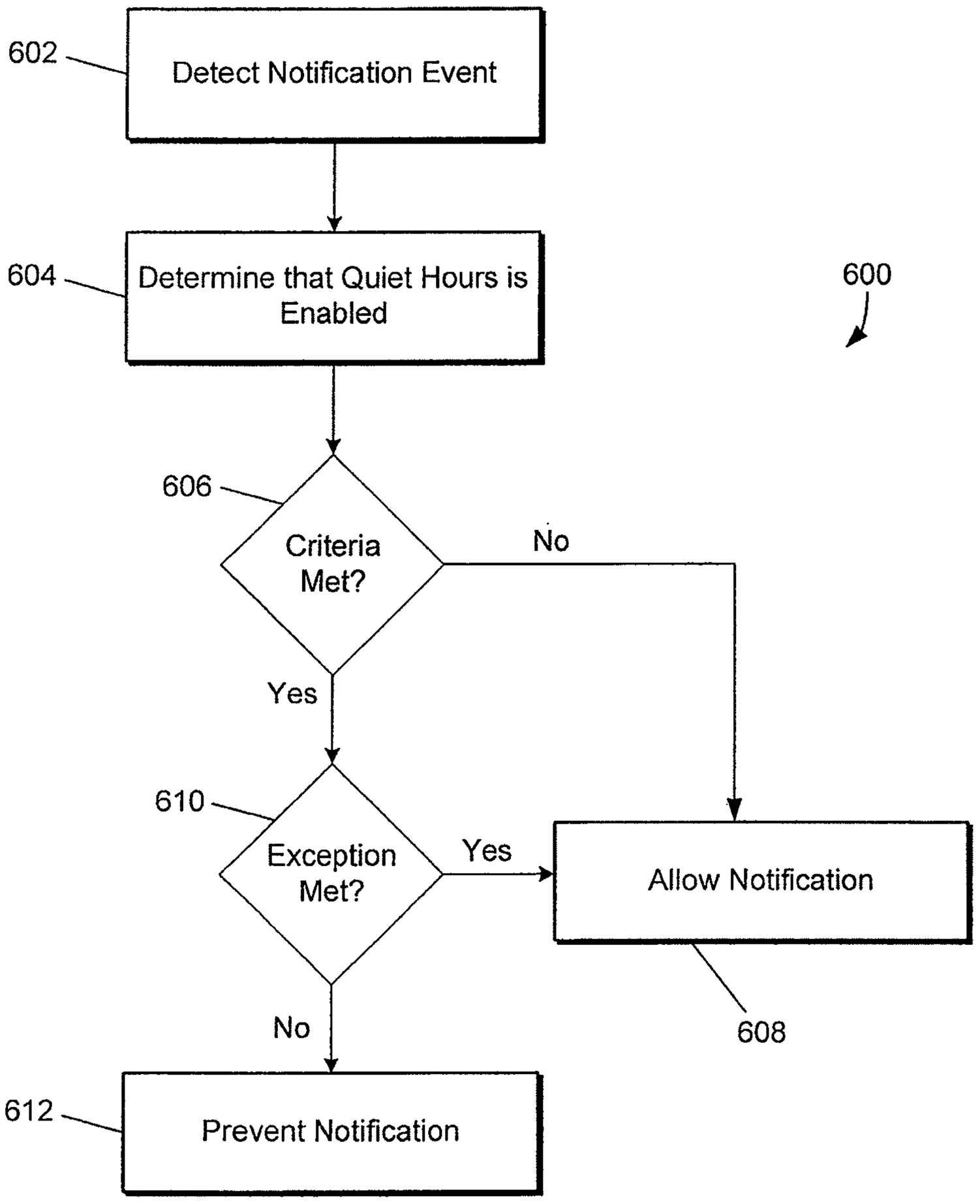
602
Detect Notification Event
604
Determine that Quiet Hours is Enabled
600
606
Criteria Met?
No
Yes
610
Exception Met?
Yes
Allow Notification
608
No
612
Prevent Notification

FIG. 6

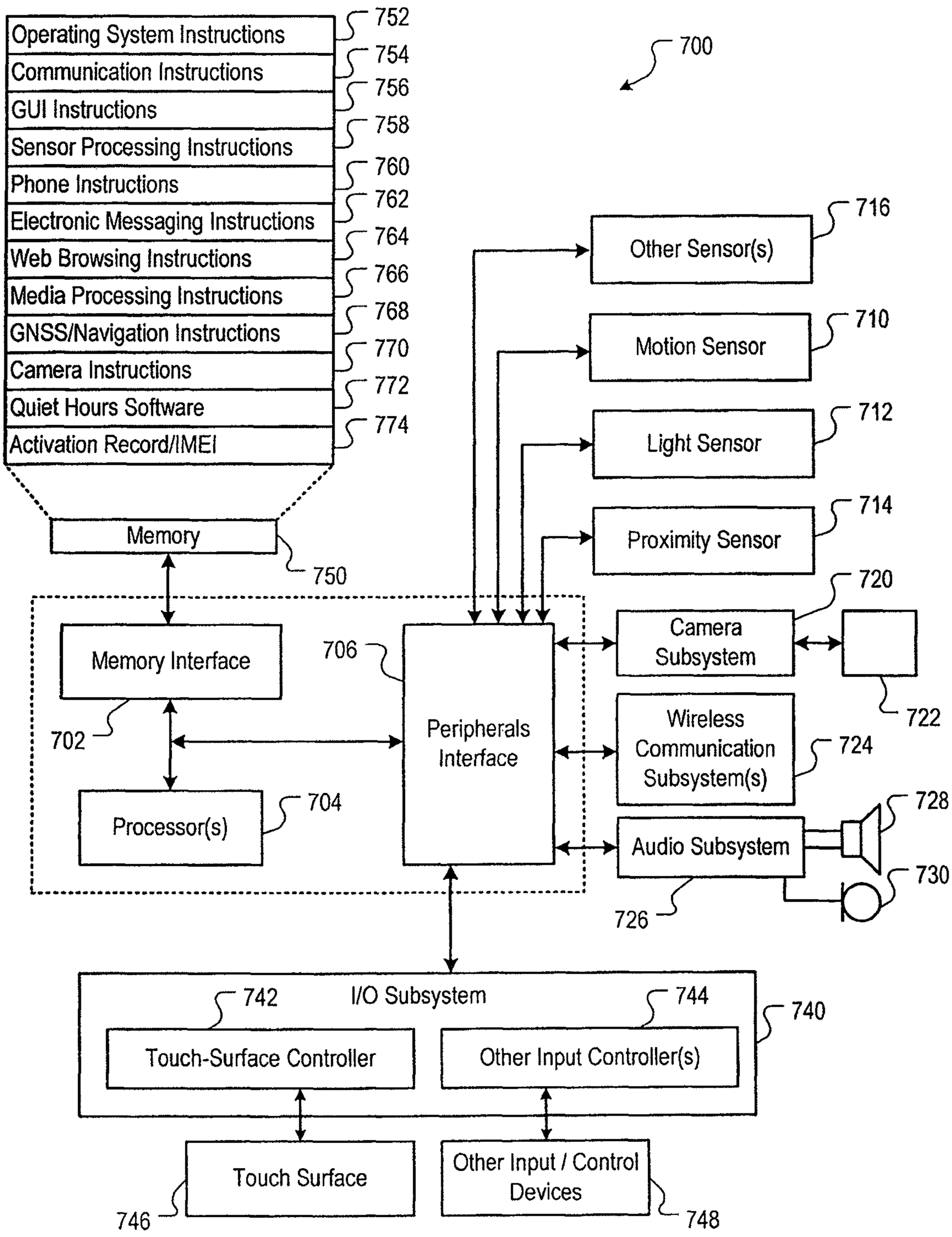
Operating System Instructions
752
Communication Instructions
754
GUI Instructions
756
Sensor Processing Instructions
758
Phone Instructions
760
Electronic Messaging Instructions
762
Web Browsing Instructions
764
Media Processing Instructions
766
GNSS/Navigation Instructions
768
Camera Instructions
770
Quiet Hours Software
772
Activation Record/IMEI
774
Memory
750
700
716
Other Sensor(s)
710
Motion Sensor
712
Light Sensor
714
Proximity Sensor
720
Camera Subsystem
722
Memory Interface
702
706
Peripherals Interface
Wireless Communication Subsystem(s)
724
Processor(s)
704
728
Audio Subsystem
730
726
I/O Subsystem
742
744
740
Touch-Surface Controller
Other Input Controller(s)
Touch Surface
746
Other Input / Control Devices
748

FIG. 7

QUIET HOURS FOR NOTIFICATIONS

CROSS-REFERENCE TO RELATED APPLICATIONS

This application claims the benefit under 35 U.S.C. §119 (e) of U.S. Provisional Patent Application No. 61/656,935, filed Jun. 7, 2012, the content of which is incorporated by reference herein in its entirety for all purposes.

TECHNICAL FIELD

The disclosure generally relates to mechanisms for providing notifications on a computing device.

BACKGROUND

Computing devices often provide notifications for events that occur on or are detected by the computing device. For example, a computing device that has telephony capability can provide a ringer notification that informs the user of an incoming telephone call. A scheduled meeting on a calendar application can trigger a notification reminding the user of a meeting. An incoming text message or email can trigger a notification that notifies the user of the new message or email. These notifications can be presented to the user by sound, movement (e.g., vibration) and/or light (e.g., a graphical notification on an illuminated display).

Sometimes these notifications occur when a user does not wish to be disturbed. For example, a telephone call notification (e.g., a ringer, a graphical notification, or vibration) during a meeting can be disruptive to the participants of the meeting. A text message or email notification while the user is sleeping can impede restful sleep. Common approaches for avoiding these types of disruptions are to allow the user to manually turn off the ringer and/or sound of the computing device or to turn off the computing device itself. However, these approaches require that the user remember to manually turn on or off the ringer or device when the user does not want to be disturbed.

SUMMARY

In some implementations, a computing device can be configured to automatically turn off notifications when generating a notification would cause a disturbance or may be unwanted by a user. The device can be configured with quiet hours during which notifications that would otherwise be generated by the computing device can be suppressed. In some implementations, quiet hours can be configured as a time period with a start time and an end time. In some implementations, quiet hours can be derived from application data. For example, calendar data, alarm clock data, map data, sensor data, etc. can be used to determine when quiet hours should be enforced. In some implementations, the device can be configured with exceptions to quiet hour notification suppression. For example, the user can identify contacts to which quiet hours notification suppression should not be applied.

Particular implementations provide at least the following advantages: Notifications on a computing device can be automatically suppressed reducing the number of unwanted disturbances experienced by a user of the computing device. According to some implementations, the user does not have to remember to turn on or off notifications.

Details of one or more implementations are set forth in the accompanying drawings and the description below. Other features, aspects, and potential advantages will be apparent from the description and drawings, and from the claims.

DESCRIPTION OF DRAWINGS

FIGS. **1**A and **1**B illustrate example graphical user interface for configuring quiet hours on a computing device.

FIGS. **2**A and **2**B illustrate example graphical user interfaces for configuring a location for quiet hours.

FIG. **3** illustrates an example graphical user interface for configuring quiet hours for a calendar event.

FIG. **4** illustrates an example graphical user interface for configuring quiet hours for an alarm clock event.

FIG. **5** illustrates an example graphical user interface with a quiet hours indicator.

FIG. **6** is flow diagram of an example quiet hours process.

FIG. **7** is a block diagram of an exemplary system architecture implementing the features and processes of FIGS. **1-6**.

Like reference symbols in the various drawings indicate like elements.

DETAILED DESCRIPTION

This disclosure describes various Graphical User Interfaces (GUIs) for implementing various features, processes or workflows. These GUIs can be presented on a variety of electronic devices including but not limited to laptop computers, desktop computers, computer terminals, television systems, tablet computers, e-book readers and smart phones. One or more of these electronic devices can include a touch-sensitive surface. The touch-sensitive surface can process multiple simultaneous points of input, including processing data related to the pressure, degree or position of each point of input. Such processing can facilitate gestures with multiple fingers, including pinching and swiping.

When the disclosure refers to "select" or "selecting" user interface elements in a GUI, these terms are understood to include clicking or "hovering" with a mouse or other input device over a user interface element, or touching, tapping or gesturing with one or more fingers or stylus on a user interface element. User interface elements can be virtual buttons, menus, selectors, switches, sliders, scrubbers, knobs, thumbnails, links, icons, radial buttons, checkboxes and any other mechanism for receiving input from, or providing feedback to a user.

When the disclosure refers to "scroll" or "scrolling" a GUI, these terms are understood to include manipulating the GUI with a mouse or other input device, or touching, tapping or gesturing with one or more fingers or stylus on a user interface to cause the GUI to appear to scroll. For example, a user can provide input to a user interface elements (e.g., virtual buttons, switches, sliders, scrubbers, knobs, buttons and any other mechanism) to cause the GUI to scroll.

Quiet Hours

Manual Setting

FIGS. **1**A and **1**B illustrate example graphical user interface **100** for configuring quiet hours on a computing device. For example, a user can scroll graphical user interface **100** to display the graphical elements of FIGS. **1**A and **1**B. Graphical user interface **100** can be accessed by selecting a system settings function of the computing device, for example.

In some implementations, graphical user interface **100** can include graphical element **102** for initiating and/or terminating quiet hours on the computing device. For example, a user

can select graphical element **102** to manually initiate quiet hours on the computing device. During quiet hours, notifications that would normally be generated by the computing device can be suppressed. For example, when the computing device detects an event (e.g., incoming telephone call, text message, email, calendar event, etc.) during quiet hours that would normally trigger a notification that causes the computing device to generate a sound (e.g., a ringer), cause movement (e.g., vibration), or present a graphical notification (e.g., illuminate the display of the mobile device), the sound, movement or illumination can be suppressed. A user can terminate quiet hours by selecting graphical element **102**. For example, graphical element **102** can function as an on/off toggle such that when quiet hours is turned off, selection of graphical element **102** turns quiet hours on and when quiet hours is turned on, selection of graphical element **102** turns quiet hours off.

Quiet Hours

Automatic/Scheduled Setting

In some implementations, quiet hours can be automatically initiated and terminated based on a user-defined schedule. For example, graphical user interface **100** can include graphical element **104** (e.g., a switch) for turning on/off scheduled quiet hours. In some implementations, a user can specify what types of notifications can be received during quiet hours, for example, SMS text messages may be blocked while email messages are allowed to generate a notification. In some implementations, a user can specify a period of time during which quiet hours are active. For example, graphical element **106** can be selected to present an interface (not shown) for specifying which days of the week to observe quiet hours and the time period (e.g., start time and end time) during which quiet hours should be enforced on the selected days. For example, a user can specify that quiet hours should be enforced between 9 pm and 7 am on weekdays (e.g., Monday-Friday).

In some implementations, quiet hours can be adjusted based on time zones. For example, graphical user interface **100** can include a switch **108** for turning on/off automatic time zone adjustments to the quiet hours schedule. For example, if the computing device is moved from the Pacific Time Zone to the Central Time Zone, the quiet hours schedule can be automatically adjusted to account for the time difference. In some implementations, if automatic time zone adjustment for quiet hours is turned off, the user can be prompted to adjust the quiet hours schedule based on movement of the computing device. For example, if the user travels with the computing device from San Francisco, Calif. to Denver, Colo. and automatic time zone adjustment is turned off, the device can present a graphical notification (not shown) asking the user if the user would like the quiet hours schedule to be adjusted to Denver (Central) time. The user can provide input to the graphical notification to cause the quiet hours schedule to be adjusted to Central Time or can provide input to maintain the quiet hours schedule according to Pacific Time.

In some implementations, graphical user interface **100** can include graphical element **109** for specifying types of notifications (e.g., sound, vibration, illumination, none) that are allowed during quiet hours. If the user specifies that notifications by illumination (e.g., illuminate the display of the computing device and present a graphical notification) are allowed then notifications that would normally cause a sound or vibration will merely cause an illumination of the display and a presentation of a graphical notification. If the user specifies that no notifications are allowed, then all notifications will be suppressed; no sound, vibration and/or illumination will be generated by the mobile device in response to a detected event.

Quiet Hours Exceptions

In some implementations, a user can configure the computing device to allow notifications during quiet hours. For example, graphical user interface **100** can include graphical element **110** (e.g., a switch) for turning on/off a quiet hours exception for contacts in the user's address book. If graphical element **110** is in the "on" state, events (e.g., telephone call, text message, email, etc.) associated with a contact in the user's contacts database (e.g., address book) will generate a notification during quiet hours. Notifications that are not associated with a contact in the user's contacts database or address book will be suppressed according to normal quiet hours operation. Similarly, quiet hours exceptions for favorite contacts can be turned on by selecting graphical element **112**. For example, a user can specify a group of favorite contacts in the user's contacts database.

Graphical user interface **100** can include graphical element **114** for identifying contact groups in the user's address book that qualify for a quiet hours exception. For example, a user can generate groups of contacts (e.g., work, family, softball team, favorites, VIP, etc.) in the user's address book. The user can select graphical element **114** to view and select one or more contact groups for which a quiet hours exception should apply. If an event associated with a member of a selected contact group is detected and generates a notification during quiet hours, the notification from the selected group will not be suppressed. Similarly, quiet hours exceptions for specific or individual contacts can be specified by selecting graphical element **116**.

In some implementations, a quiet hours exception can be based on the urgency of an event. For example, the urgency of an event can be inferred by how soon the event is repeated. Graphical element **118** can be selected by the user to specify a threshold period of time by which the urgency of an event can be determined. For example, a user can select graphical element **110** and specify a time period of three minutes. Thus, if two telephone calls, text messages, emails, etc., are received during quiet hours from the same caller within a three minute period, the second call can cause a notification (e.g., sound, movement, illumination) to be generated by the computing device.

In some implementations, a quiet hours exception can be inferred from prior user activity on the computing device. For example, if during quiet hours the user initiates a phone call, text message, email, or other communication to a particular person, a reply communication from the particular person can be allowed to generate a notification on the computing device. In some implementations, the reply exception can be subject to a window of time during which the reply exception will apply. For example, if the reply communication from the particular person is received within an hour, the reply exception can apply and a notification can be generated. If the reply communication is received three hours after the user-initiated communication, then the reply communication from the particular person can be suppressed. The reply threshold can be specified by the user by selecting graphical element **120**.

Automatically Enabling Quiet Hours for Application Events

Referring to FIG. **1**B, graphical user interface **100** can include graphical element **122** for turning on/off quiet hours

for calendar events. For example, a user can select graphical element **122** to cause quiet hours to be automatically enabled for calendar events (e.g., meetings, appointments, etc.) or based on other calendar data (e.g., office hours). For example, when a meeting event is generated for a calendar application on the computing device, quiet hours can be automatically enabled for the duration of the meeting event so that the user will not receive notifications during the meeting. In some implementations, a user may select individual calendar events to cause quiet hours to be enabled, such that some, but not all, calendar events suppress notifications.

In some implementations, if the calendar application has information that specifies office hours (e.g., working hours) for the user, quiet hours can be enabled such that work related notifications will be suppressed during non-working hours and/or non-work related notifications will be suppressed during working hours. For example, if an email is received from a work email account during non-working hours, the work email notification can be suppressed. Similarly, if an email is received from a non-work email account during working hours, the non-work email notification can be suppressed. Telephone calls, text messages and other communication notifications can be handled in a similar manner.

In some implementations, graphical user interface **100** can include graphical element **124** for turning on quiet hours for alarm clock events. For example, a user can select graphical element **124** to cause quiet hours to be automatically enabled for alarm clock events. In some implementations, quiet hours can be automatically enabled when the user sets an alarm in an alarm clock application and automatically disabled when the alarm goes off. In some implementations, quiet hours can be automatically disabled if the user starts using the computing device after the alarm is set. For example, if the user sets the alarm to wake the user up in the morning at 8 am but the user starts using the computing device at 7 am, quiet hours can be disabled at 7 am based on the use of the computing device.

Automatically Enabling Quiet Hours Based on Movement

In some implementations, quiet hours can be enabled/disabled based on movement of the mobile device. For example, sensors on the mobile device can detect the speed at which the mobile device is moving and determine a corresponding activity. If the device is moving at three miles per hour, the device can determine that the user is walking. If the device is moving at six miles per hour, the device can determine that the user is running. If the device is moving at twenty miles per hour, the device can determine that the user is driving or riding in a motor vehicle.

In some implementations, graphical user interface **100** can include graphical element **126** for enabling quiet hours while the user is driving or riding in a car. For example, a user may want to reduce the number of distractions while driving and/or reduce the temptation to use the computing device while driving. Thus, a user can cause the mobile device to automatically suppress notifications while driving by selecting graphical element **126**.

In some implementations, graphical user interface **100** can include graphical element **128** for enabling quiet hours while the user is running or walking. For example, a user may not want to be bothered with notifications while exercising. The user may be listening to music while walking and/or running and may be annoyed by notifications interrupting the user's workout or enjoyment of music. Thus, a user can cause the mobile device to suppress notifications while walking and/or running by selecting graphical element **128**.

In some embodiments, a detection that the device is not moving may be used to activate quiet hours and suppress notifications. For example, a user may place their mobile device on a nightstand or desk before sleep—a detection that the mobile device is not moving can be used as an indication that notifications should be suppressed. In other embodiments, a detection that the mobile device has not been moving for a predetermined period of time may similarly indicate that a user has placed the mobile device in a fixed position and that notifications should be suppressed.

Automatically Enabling Quiet Hours for Locations

In some implementations, quiet hours can be enabled/disabled based on a location. For example, if the user attends church, the user may wish to suppress notifications while at church. If the user likes to go to the movies, the user may wish to suppress notifications while at the movie theater. When the user is proximate to a designated location, quiet hours can be enabled. For example, proximity can be based on the current location of the mobile device as determined by using any of a variety of location determination technologies, including global navigation satellite systems, dead-reckoning, geofencing and/or other location determination technologies. When the user moves away from a designated location, quiet hours can be disabled. Thus, in some implementations, graphical user interface **100** can include graphical element **130** for identifying locations where quiet hours should be enforced, as described further below with reference to FIGS. **2**A and **2**B.

FIGS. **2**A and **2**B illustrate example graphical user interfaces **200** and **250** for configuring a location for quiet hours. In some implementations, graphical user interface **200** can be presented in response to a user selecting graphical element **130** of FIG. **1**B. Graphical user interface **200** can include a listing of locations **202**, **204** that have been configured for quiet hours. In some implementations, a user can select graphical element **206** or **208** to view and edit information corresponding to locations **202** and **204**, respectively. In some implementations, a user can delete a location from the list of locations by selecting graphical element **210**. For example, a user can select location **202** and then select graphical element **210** to delete the location. Alternatively, on a touch-screen device, a user can slide or swipe a finger across the location to cause a delete button to be displayed. The user can then select the delete button to delete the location from the list of locations. In some implementations, a new location can be configured for quiet hours by selecting graphical element **212**.

In some implementations, graphical user interface **250** of FIG. **2**B can be presented in response to a user selecting graphical element **206** or **208**. If graphical user interface **250** is presented in response to a selection of graphical element **206** or **208**, graphical user interface **250** can be populated with data configured for the location corresponding to graphical element **206** or **208** so that the user can edit the data. Graphical user interface **250** can then be used to edit or modify the data (e.g., parameters) for the location. If graphical user interface **250** is presented in response to a selection of graphical element **212**, the graphical user interface **250** can be populated with default information. The default information can then be modified to specify quiet hours parameters for the new location.

In some implementations, graphical user interface **250** can include graphical element **252** for receiving text specifying a label for the location. For example, graphical element **252** can be a text input box and the user can type in a name or label for a location. Graphical user interface can include graphical element **254** for specifying a geographic location. For

example, graphical element **254** can specify the current location of the mobile device as the default location. If the user selects graphical element **254**, the user can enter an address specifying to the geographic location where quiet hours should be enforced. Alternatively, when the user selects graphical element **254**, a map interface (not shown) can be displayed and the user can select or otherwise identify a geographic location on the map where quiet hours should be enforced. Graphical user interface **250** can include graphical element **255** for specifying proximity. For example, the user can select a graphical element **255** to specify a proximity, distance, or radius about the location within which quiet hours should be enforced. The user-specified geographic location can then be displayed on graphical element **254**.

In some implementations, graphical user interface **250** can include graphical element **256** for specifying quiet hours start and end times for a location. For example, if a user attends church services between 8 am and 10 am on Sunday and works at the church at other times, the user may wish to have quiet hours enforced during the church services but allow notifications during other times when the user is at the church location. In some implementations, quiet hours can be enforced at a specified location at all times. For example, the default value for graphical element **256** can be "all" or some other indication that quiet hours is always enforced at the specified location. The user can then change the default value to a specified time period if the user wants quiet hours enforced only during a particular time period. The specified time period can be a recurring time period. For example, the recurring time period can be Monday through Friday, 8 am to 6 pm.

In some implementations, quiet hours at a specified location can be enforced selectively based on characteristics of an event that triggers a notification. For example, characteristics can include who caused the event (e.g., a contact), a communication mechanism (e.g., an email account) or any other characteristic. In some implementations, graphical element **258** can be used to specify email accounts that should be excepted from quiet hours enforcement. For example, a user can add a work location to the locations where quiet hours should be enforced but specify using graphical element **258** that email received from a work account should generate notifications during quiet hours at the work location. Similarly, a user can specify quiet hours for a home location and specify an exception allowing email from a personal account to trigger notifications. Thus, a user can specify what types of emails the user will receive notifications for at specific locations. Similarly, telephone notifications can be configured by selecting graphical element **260** for a specified quiet hours location such that only telephone calls from specified contacts (e.g., individuals, groups, etc.) will generate notifications at a specified location. Text messages exceptions can be configured for a quiet hours location in a similar manner as email and telephone by selecting graphical element **262**. Once the user has configured the location with the quiet hours location parameters described above, the user can select graphical element **264** to save the quiet hours location configuration. The user can select graphical element **266** to exit or close graphical user interface **250** without saving any changes. Once the new location is saved, the location can be displayed in graphical user interface **200** of FIG. **2**A.

Enabling Quiet Hours in Applications

In some implementations, quiet hours can be configured within applications. For example, a calendar application can enable quiet hours for a time period corresponding to a scheduled meeting. A clock application can enable quiet hours for a time period corresponding to a sleep/wake schedule.

Calendar Events

FIG. **3** illustrates an example graphical user interface **300** for configuring quiet hours for a calendar event. For example, a user can invoke graphical user interface **300** from within a calendar application by providing input indicating that the user wants to generate a new calendar event (e.g., meeting, appointment, etc.). Graphical user interface **300** can include graphical element **302** for specifying a title for the calendar event. For example, graphical element **302** can be a text box for entering a title for the calendar event.

Graphical user interface **300** can include a graphical element **304** for specifying a location associated with the calendar event. For example, the location can be an ad hoc description of the location, an address or a name that corresponds to a contact in the user's address book or contacts list. In some implementations, if quiet hours are turned on for a calendar event, quiet hours will be enforced only if the user or computing device is at the location associated with the calendar event. Thus, if the user misses the appointment or meeting, the user will still get notifications on the computing device even though quiet hours has been turned on for the time period of the calendar event.

Graphical user interface **300** can include graphical element **306** for specifying start and end times for the calendar event. For example, a user can select graphical element **306** to invoke a graphical user interface (not shown) for specifying start and end times for the calendar event.

Graphical user interface **300** can include graphical element **308** for specifying the user's availability during the calendar event. For example, a user can specify that the user will be available or busy. In some implementations, quiet hours can be enabled for the duration of the calendar event based on the specified availability of the user. For example, if the user selects graphical element **308** and selects 'busy' as the user's availability for the duration of the calendar event, quiet hours can be enforced based on the 'busy' availability selection. Alternatively, if the user selects graphical element **308** and selects 'free' or 'available' as the availability selection, then quiet hours will not be enforced during the calendar event.

Graphical user interface **300** can include graphical element **310** for turning on/off quiet hours for a calendar event. For example, if quiet hours has been enabled for calendar events using the system settings of graphical user interface **100**, then when a new calendar event is generated graphical element **310** can default to 'on.' The user can select graphical element **310** to toggle quiet hours to 'off' for the new calendar event if the user does not want quiet hours enforced for the new calendar event. If quiet hours has not been previously enabled for calendar events (e.g., through the system settings of graphical user interface **100**), the user can select graphical element **310** to enable quiet hours for the new calendar event. Quiet hours can then be enforced for the duration of the calendar event.

Alarm Clock Events

FIG. **4** illustrates an example graphical user interface **400** for configuring quiet hours for an alarm clock event. Graphical user interface **400** can include graphical element **402** for specifying when to repeat the alarm (e.g., every day, weekdays, Mondays, etc.). Graphical element **404** can be selected to invoke an interface (not shown) that allows the user to select a type of sound associated with the alarm. Graphical

element **406** allows the user to specify a label for the alarm. For example, the user can enter text for the label. A user can interact with graphical element **410** to specify a time at which the alarm should sound. For example, graphical element **410** can include scrollable numbers for setting hours and minutes and a scrollable element for specifying AM or PM.

Graphical user interface **400** can include graphical element **412** for enabling/disabling (e.g., turning on/off) quiet hours for the alarm clock event. For example, if quiet hours has been enabled for alarm clock events using the system settings of graphical user interface **100**, then when a new alarm clock event is generated graphical element **412** can default to 'on' and quiet hours can be enforced from the time when the alarm is turned on to the time the alarm sounds (goes off). The user can select graphical element **310** to toggle quiet hours to 'off' for the new alarm clock event if the user does not want quiet hours enforced for the new alarm clock event. If quiet hours has not been previously enabled for alarm clock events (e.g., through the system settings of graphical user interface **100**), the user can select graphical element **310** to enable quiet hours for the new alarm clock event. Quiet hours can then be enforced for the duration of the calendar event.

In some implementations, quiet hours can be automatically enabled (turned on, enforced) when a clock alarm is turned on and automatically disabled when the clock alarm sounds. For example, a user can set the alarm to wake the user at 6 am in the morning. Quiet hours can be automatically enforced when the user turns on the clock alarm at night and quiet hours enforcement can automatically terminate when the alarm goes off or sounds in the morning. In some implementations, the user can be prompted to turn quiet hours on when the user generates a new alarm clock event. For example, if the system settings indicate the quiet hours is turned off for alarm clock events, the user can be prompted to turn on quiet hours for a new alarm clock event when the alarm clock event is generated.

Implying Quiet Hours Based on Patterns of Use

In some implementations, quiet hours can be enabled and/or enforced based on observed user patterns. For example, the computing device can monitor when the user turns quiet hours on or off on the computing device and correlate this activity to movement, location, application data or other data available to the computing device. For example, if the user repeatedly mutes or turns off the computing device during meetings scheduled in the user's calendar, the computing device can correlate the action of muting or turning off the computing device to the calendar event and automatically determine that the device should enter quiet hours during meetings. The device can enable or disable quiet hours automatically or present a prompt asking the user if the user wishes to enter into quiet hours mode. Similarly, if a user repeatedly mutes or turns off the computing device while at a particular location and/or at a particular time, the computing device can correlate the user's action (e.g., mute, turn off the device) to the particular location and/or time. The computing device can then automatically enter quiet hours when the user is at the particular location and/or at the particular time.

Example Quiet Hours Indicator

FIG. **5** illustrates an example graphical user interface **500** with a quiet hours indicator. Graphical user interface **500** can include information area **502** for displaying status information for the computing device. For example, information area **502** can include signal strength information, telecommunications carrier information, the current time and/or battery status information. In some implementations, information area **502** can include quiet hours indicator **504**. For example, quiet hours indicator **504** can include text, symbols, icons or any other type of graphical elements for indicating that quiet hours are currently enforced (e.g., turned on) on the computing device. In some implementations, the quiet hours indicator can be displayed on portions of graphical user interface **500** other than information area **502**.

Voice Activation

In some implementations, quiet hours can be enabled by voice command. For example, the user can speak a command (e.g, "enable quiet hours" or "start quiet hours") to enable quiet hours on the computing device. The computing device can include a microphone to detect the spoken command. In response to detecting the spoken command, the computing device can enable quiet hours on the computing device. The computing device can respond to other quiet hours voice commands. For example, a user can speak a command such as "do not disturb for the next three hours" to enable quiet hours for the next three hours. The computing device can detect and process voice commands to enable any of the quiet hours functions discussed herein with reference to FIGS. **1-6**.

Example Quiet Hours Process

FIG. **6** is flow diagram **600** of an example quiet hours process. At step **602**, a notification event is detected on a computing device. For example, a notification event can be associated with an incoming telephone call, a new voice message, receipt of an email, an alarm, a reminder associated with a calendar event, or any other event that can trigger a notification on the computing device.

At step **604**, the computing device can determine that quiet hours are enabled on the computing device. For example, quiet hours can be enabled on the computing device through the interfaces described above with reference to FIGS. **1-4**.

At step **606**, the computing device can determine whether quiet hours criteria have been met. For example, quiet hours criteria can be time, location and/or movement based criteria. Quiet hours criteria can include a quiet hours schedule, calendar events, alarm clock events, movement/speed thresholds (e.g., corresponding to driving, walking, running, etc.), specified locations, for example. If the quiet hours criteria has not been met (e.g., the current time is not within a time period specified for quiet hours, the current location is not a designated quiet hours location, device movement does not exceed a specified threshold, etc.), then notifications generated for events detected by the computing device will not be suppressed.

If the quiet hours criteria has been met at step **606**, then at step **610** the computing device can determine whether a quiet hours exception has been met. For example, a quiet hours exception can correspond to events associated with designated contacts, events that are determined to be urgent (e.g., where a caller calls again within a short period of time) or events that were initiated by the user of the computing device (e.g., a reply to a user-initiated phone call, text message, email, etc.). In some implementations, if one or more quiet hours exceptions are met, the computing device can allow a notification for the detected event at step **608**. In some implementations, if no quiet hours exceptions are met, the computing device can prevent or suppress notifications for the detected event at step **612**.

Example System Architecture

FIG. **7** is a block diagram of an example computing device **700** that can implement the features and processes of FIGS. **1-6**. The computing device **700** can include a memory interface **702**, one or more data processors, image processors and/or central processing units **704**, and a peripherals interface **706**. The memory interface **702**, the one or more processors **704** and/or the peripherals interface **706** can be separate components or can be integrated in one or more integrated circuits. The various components in the computing device **700** can be coupled by one or more communication buses or signal lines.

Sensors, devices, and subsystems can be coupled to the peripherals interface **706** to facilitate multiple functionalities. For example, a motion sensor **710**, a light sensor **712**, and a proximity sensor **714** can be coupled to the peripherals interface **706** to facilitate orientation, lighting, and proximity functions. Other sensors **716** can also be connected to the peripherals interface **706**, such as a global navigation satellite system (GNSS) (e.g., GPS receiver), a temperature sensor, a biometric sensor, or other sensing device, to facilitate related functionalities.

A camera subsystem **720** and an optical sensor **722**, e.g., a charged coupled device (CCD) or a complementary metal-oxide semiconductor (CMOS) optical sensor, can be utilized to facilitate camera functions, such as recording photographs and video clips. The camera subsystem **720** and the optical sensor **722** can be used to collect images of a user to be used during authentication of a user, e.g., by performing facial recognition analysis.

Communication functions can be facilitated through one or more wireless communication subsystems **724**, which can include radio frequency receivers and transmitters and/or optical (e.g., infrared) receivers and transmitters. The specific design and implementation of the communication subsystem **724** can depend on the communication network(s) over which the computing device **700** is intended to operate. For example, the computing device **700** can include communication subsystems **724** designed to operate over a GSM network, a GPRS network, an EDGE network, a Wi-Fi or WiMax network, and a Bluetooth™ network. In particular, the wireless communication subsystems **724** can include hosting protocols such that the device **100** can be configured as a base station for other wireless devices.

An audio subsystem **726** can be coupled to a speaker **728** and a microphone **730** to facilitate voice-enabled functions, such as speaker recognition, voice replication, digital recording, and telephony functions. The audio subsystem **726** can be configured to facilitate presentation of sounds associated with notifications, as described above with reference to FIGS. **1-6**.

The I/O subsystem **740** can include a touch-surface controller **742** and/or other input controller(s) **744**. The touch-surface controller **742** can be coupled to a touch surface **746**. The touch surface **746** and touch-surface controller **742** can, for example, detect contact and movement or break thereof using any of a plurality of touch sensitivity technologies, including but not limited to capacitive, resistive, infrared, and surface acoustic wave technologies, as well as other proximity sensor arrays or other elements for determining one or more points of contact with the touch surface **746**.

The other input controller(s) **744** can be coupled to other input/control devices **748**, such as one or more buttons, rocker switches, thumb-wheel, infrared port, USB port, and/or a pointer device such as a stylus. The one or more buttons (not shown) can include an up/down button for volume control of the speaker **728** and/or the microphone **730**.

In one implementation, a pressing of the button for a first duration can disengage a lock of the touch surface **746**; and a pressing of the button for a second duration that is longer than the first duration can turn power to the computing device **700** on or off. Pressing the button for a third duration can activate a voice control, or voice command, module that enables the user to speak commands into the microphone **730** to cause the device to execute the spoken command. The user can customize a functionality of one or more of the buttons. The touch surface **746** can, for example, also be used to implement virtual or soft buttons and/or a keyboard.

In some implementations, the computing device **700** can present recorded audio and/or video files, such as MP3, AAC, and MPEG files. In some implementations, the computing device **700** can include the functionality of an MP3 player, such as an iPod™. The computing device **700** can, therefore, include a 36-pin connector that is compatible with the iPod. Other input/output and control devices can also be used.

The memory interface **702** can be coupled to memory **750**. The memory **750** can include high-speed random access memory and/or non-volatile memory, such as one or more magnetic disk storage devices, one or more optical storage devices, and/or flash memory (e.g., NAND, NOR). The memory **750** can store an operating system **752**, such as Darwin, RTXC, LINUX, UNIX, OS X, WINDOWS, or an embedded operating system such as VxWorks.

The operating system **752** can include instructions for handling basic system services and for performing hardware dependent tasks. In some implementations, the operating system **752** can be a kernel (e.g., UNIX kernel). In some implementations, the operating system **752** can include instructions for receiving quiet hours configuration input and enforcing quiet hours on the computing device. Operating system **752** can implement the quiet hours features described with reference to FIGS. **1-6**.

The memory **750** can also store communication instructions **754** to facilitate communicating with one or more additional devices, one or more computers and/or one or more servers. The memory **750** can include graphical user interface instructions **756** to facilitate graphic user interface processing; sensor processing instructions **758** to facilitate sensor-related processing and functions; phone instructions **760** to facilitate phone-related processes and functions; electronic messaging instructions **762** to facilitate electronic-messaging related processes and functions; web browsing instructions **764** to facilitate web browsing-related processes and functions; media processing instructions **766** to facilitate media processing-related processes and functions; GNSS/Navigation instructions **768** to facilitate GNSS and navigation-related processes and instructions; and/or camera instructions **770** to facilitate camera-related processes and functions.

The memory **750** can store other software instructions **772** to facilitate other processes and functions, such as the quiet hours processes and functions as described with reference to FIGS. **1-6**. For example, the software instructions can include instructions for receiving quiet hours configuration information from calendar and clock applications on the computing device.

The memory **750** can also store other software instructions (not shown), such as web video instructions to facilitate web video-related processes and functions; and/or web shopping instructions to facilitate web shopping-related processes and functions. In some implementations, the media processing instructions **766** are divided into audio processing instructions and video processing instructions to facilitate audio processing-related processes and functions and video processing-related processes and functions, respectively. An

activation record and International Mobile Equipment Identity (IMEI) **774** or similar hardware identifier can also be stored in memory **750**.

Each of the above identified instructions and applications can correspond to a set of instructions for performing one or more functions described above. These instructions need not be implemented as separate software programs, procedures, or modules. The memory **750** can include additional instructions or fewer instructions. Furthermore, various functions of the computing device **700** can be implemented in hardware and/or in software, including in one or more signal processing and/or application specific integrated circuits.

Therefore, according to the above, some examples of the disclosure are directed to a method comprising: detecting a notification event on a mobile device, where the mobile device is configured to generate sound, light, movement or a combination thereof in response to the notification event determining whether one or more criteria are met, where the one or more criteria include time-based, location-based or movement-based criteria; and preventing the mobile device from generating sound, light and/or movement in response to detecting the notification event when the one or more criteria are met. Additionally or alternatively to one or more of the examples disclosed above, in some examples the determining further comprises determining that the mobile device is near a pre-defined geographic location. Additionally or alternatively to one or more of the examples disclosed above, in some examples the determining further comprises determining that a time associated with the notification event falls within a specified time period. Additionally or alternatively to one or more of the examples disclosed above, in some examples the determining further comprises determining that a user-mode has been activated that silences the mobile device, including generating sound, light and/or movement. Additionally or alternatively to one or more of the examples disclosed above, in some examples the user-mode is manually activated and de-activated. Additionally or alternatively to one or more of the examples disclosed above, in some examples the determining further comprises determining the mobile device is moving faster than a threshold speed. Additionally or alternatively to one or more of the examples disclosed above, in some examples the determining further comprises determining the mobile device is slower faster than a threshold speed for a pre-determined amount of time. Additionally or alternatively to one or more of the examples disclosed above, in some examples the determining further comprises: determining that one or more exceptions are met; and allowing, in response to detecting the notification event when the one or more exceptions are met, the mobile device to generating sound, light or movement. Additionally or alternatively to one or more of the examples disclosed above, in some examples the determining the one or more exceptions is met further comprises determining that the notification event is associated with a contact stored in a contacts database on the mobile device. Additionally or alternatively to one or more of the examples disclosed above, in some examples the determining the one or more exceptions is met further comprises determining that the notification event is associated with a contact that is associated with a previous notification event that was detected within a threshold period of time.

Some examples of the disclosure are directed to a non-transitory computer-readable medium including one or more sequences of instructions which, when executed by one or more processors, causes: detecting a notification event on a mobile device, where the mobile device is configured to generate sound, light, movement or a combination thereof in response to the notification event; determining whether one or more criteria are met, where the one or more criteria include time-based, location-based or movement-based criteria; and preventing the mobile device from generating sound, light and/or movement in response to detecting the notification event when the one or more criteria are met. Additionally or alternatively to one or more of the examples disclosed above, in some examples the instructions that cause determining further comprise instructions that cause determining that the mobile device is near a pre-defined geographic location. Additionally or alternatively to one or more of the examples disclosed above, in some examples the instructions that cause determining further comprise instructions that cause determining that a time associated with the notification event falls within a specified time period. Additionally or alternatively to one or more of the examples disclosed above, in some examples the instructions that cause determining further comprise instructions that cause determining that a user-mode has been activated that silences the mobile device, including generating sound, light and/or movement. Additionally or alternatively to one or more of the examples disclosed above, in some examples the user-mode is manually activated and de-activated. Additionally or alternatively to one or more of the examples disclosed above, in some examples the instructions that cause determining further comprise instructions that cause determining the mobile device is moving faster than a threshold speed. Additionally or alternatively to one or more of the examples disclosed above, in some examples the instructions that cause determining further comprise instructions that cause determining the mobile device is slower faster than a threshold speed for a pre-determined amount of time. Additionally or alternatively to one or more of the examples disclosed above, in some examples the instructions that cause determining further comprise instructions that cause: determining that one or more exceptions are met; and allowing, in response to detecting the notification event when the one or more exceptions are met, the mobile device to generating sound, light or movement. Additionally or alternatively to one or more of the examples disclosed above, in some examples the instructions that cause determining the one or more exceptions is met further comprise instructions that cause determining that the notification event is associated with a contact stored in a contacts database on the mobile device. Additionally or alternatively to one or more of the examples disclosed above, in some examples the instructions that cause determining the one or more exceptions is met further comprise instructions that cause determining that the notification event is associated with a contact that is associated with a previous notification event that was detected within a threshold period of time.

Some examples of the disclosure are directed to a system comprising: one or more processors; and a non-transitory computer-readable medium including one or more sequences of instructions which, when executed by the one or more processors, causes: detecting a notification event on a mobile device, where the mobile device is configured to generate sound, light, movement or a combination thereof in response to the notification event; determining whether one or more criteria are met, where the one or more criteria include time-based, location-based or movement-based criteria; and preventing the mobile device from generating sound, light and/or movement in response to detecting the notification event when the one or more criteria are met. Additionally or alternatively to one or more of the examples disclosed above, in some examples the instructions that cause determining further comprise instructions that cause determining that the mobile device is near a pre-defined geographic location. Additionally or alternatively to one or more of the examples

disclosed above, in some examples the instructions that cause determining further comprise instructions that cause determining that a time associated with the notification event falls within a specified time period. Additionally or alternatively to one or more of the examples disclosed above, in some examples the instructions that cause determining further comprise instructions that cause determining that a user-mode has been activated that silences the mobile device, including generating sound, light and/or movement. Additionally or alternatively to one or more of the examples disclosed above, in some examples the user-mode is manually activated and deactivated. Additionally or alternatively to one or more of the examples disclosed above, in some examples the instructions that cause determining further comprise instructions that cause determining the mobile device is moving faster than a threshold speed. Additionally or alternatively to one or more of the examples disclosed above, in some examples the instructions that cause determining further comprise instructions that cause determining the mobile device is slower faster than a threshold speed for a pre-determined amount of time. Additionally or alternatively to one or more of the examples disclosed above, in some examples the instructions that cause determining further comprise instructions that cause: determining that one or more exceptions are met; and allowing, in response to detecting the notification event when the one or more exceptions are met, the mobile device to generating sound, light or movement. Additionally or alternatively to one or more of the examples disclosed above, in some examples the instructions that cause determining the one or more exceptions is met further comprise instructions that cause determining that the notification event is associated with a contact stored in a contacts database on the mobile device. Additionally or alternatively to one or more of the examples disclosed above, in some examples the instructions that cause determining the one or more exceptions is met further comprise instructions that cause determining that the notification event is associated with a contact that is associated with a previous notification event that was detected within a threshold period of time.

What is claimed is:

1. A method comprising:

receiving, at a first time, an input defining a specified time period on a mobile device, wherein:

the specified time period comprises a start time and an end time,

the first time is before the start time,

the mobile device is configured to generate a notification in response to detecting a notification event, the notification comprising sound, light, movement or a combination thereof,

the specified time period is associated with a restricted-notification mode in which the generation of notifications at the mobile device in response to detected notification events is restricted, and

the restricted-notification mode is associated with a location;

while a plurality of restricted-notification mode criteria are met, including a criterion that is met when a current time at the mobile device is within the specified time period, and a criterion that is met when the mobile device is at the location associated with the restricted notification mode, such that the mobile device is in the restricted notification mode, detecting a notification event on the mobile device;

in response to detecting the notification event on the mobile device:

determining whether, during the restricted-notification mode and before detecting the notification event, the mobile device initiated a communication with a person associated with the notification event;

in accordance with a determination that the mobile device, during the restricted-notification mode and before detecting the notification event, did not initiate the communication with the person associated with the notification event, preventing the mobile device from generating the notification in response to detecting the notification event; and

in accordance with a determination that the mobile device, during the restricted-notification mode and before detecting the notification event, initiated the communication with the person associated with the notification event, generating the notification in response to detecting the notification event.

2. The method of claim **1**,

wherein the communication with the person associated with the notification event comprises a phone call, a text message or an email initiated by the mobile device to the person.

3. The method of claim **1**,

wherein the notification event comprises a reply communication, from the person associated with the communication event, to the communication initiated from the mobile device.

4. The method of claim **1**, wherein generating the notification in response to detecting the notification event comprises:

in accordance with a determination that the notification event was detected within a time threshold of the communication initiated with the person associated with the notification event, generating the notification in response to detecting the notification event; and

in accordance with a determination that the notification event was not detected within the time threshold of the communication initiated with the person associated with the notification event, preventing the mobile device from generating the notification in response to detecting the notification event.

5. The method of claim **4**, wherein

the time threshold is user-specified.

6. The method of claim **1**, wherein the mobile device is in the restricted-notification mode in accordance with a determination that the restricted-notification mode criteria are met, the method further comprising:

in response to detecting the notification event on the mobile device, in accordance with a determination that the restricted-notification mode criteria are met and that the mobile device was in use when the notification event was detected, exiting the restricted-notification mode and generating the notification in response to detecting the notification event.

7. The method of claim **1**, wherein the mobile device is in the restricted-notification mode in accordance with a determination that the restricted-notification mode criteria are met, the restricted-notification mode criteria at least partially automatically determined based on mobile device use patterns detected by the mobile device.

8. The method of claim **1**, further comprising:

while the restricted-notification mode criteria are not met such that the mobile device is not in the restricted notification mode, detecting a second notification event on the mobile device; and

in response to detecting the second notification event on the mobile device, generating the notification on the mobile device.

9. A non-transitory computer-readable medium including one or more sequences of instructions which, when executed by one or more processors, cause the one or more processors to perform a method comprising:

receiving, at a first time, an input defining a specified time period on a mobile device, wherein:

the specified time period comprises a start time and an end time,

the first time is before the start time,

the mobile device is configured to generate a notification in response to detecting a notification event, the notification comprising sound, light, movement or a combination thereof,

the specified time period is associated with a restricted-notification mode in which the generation of notifications at the mobile device in response to detected notification events is restricted, and

the restricted-notification mode is associated with a location;

while a plurality of restricted-notification mode criteria are met, including a criterion that is met when a current time at the mobile device is within the specified time period, and a criterion that is met when the mobile device is at the location associated with the restricted notification mode, such that the mobile device is in the restricted notification mode, detecting a notification event on the mobile device; in response to detecting the notification event on the mobile device:

determining whether, during the restricted-notification mode and before detecting the notification event, the mobile device initiated a communication with a person associated with the notification event;

in accordance with a determination that the mobile device, during the restricted-notification mode and before detecting the notification event, did not initiate the communication with the person associated with the notification event, preventing the mobile device from generating the notification in response to detecting the notification event; and

in accordance with a determination that the mobile device, during the restricted-notification mode and before detecting the notification event, initiated the communication with the person associated with the notification event, generating the notification in response to detecting the notification event.

10. The non-transitory computer-readable medium of claim 9, wherein

the communication with the person associated with the notification event comprises a phone call, a text message or an email initiated by the mobile device to the person.

11. The non-transitory computer-readable medium of claim 9, wherein

the notification event comprises a reply communication, from the person associated with the communication event, to the communication initiated from the mobile device.

12. The non-transitory computer-readable medium of claim 9, wherein generating the notification in response to detecting the notification event comprises:

in accordance with a determination that the notification event was detected within a time threshold of the communication initiated with the person associated with the notification event, generating the notification in response to detecting the notification event; and

in accordance with a determination that the notification event was not detected within the time threshold of the communication initiated with the person associated with the notification event, preventing the mobile device from generating the notification in response to detecting the notification event.

13. The non-transitory computer-readable medium of claim 12, wherein:

the time threshold is user-specified.

14. The non-transitory computer-readable medium of claim 9, wherein the mobile device is in the restricted-notification mode in accordance with a determination that the restricted-notification mode criteria are met, the method further comprising:

in response to detecting the notification event on the mobile device, in accordance with a determination that the restricted-notification mode criteria are met and that the mobile device was in use when the notification event was detected, exiting the restricted-notification mode and generating the notification in response to detecting the notification event.

15. The non-transitory computer-readable medium of claim 9, wherein

the mobile device is in the restricted-notification mode in accordance with a determination that the restricted-notification mode criteria are met, the restricted-notification mode criteria at least partially automatically determined based on mobile device use patterns detected by the mobile device.

16. The non-transitory computer-readable medium of claim 9, wherein the method further comprises:

while the restricted-notification mode criteria are not met such that the mobile device is not in the restricted notification mode, detecting a second notification event on the mobile device; and

in response to detecting the second notification event on the mobile device, generating the notification on the mobile device.

17. A system comprising:

one or more processors; and

a non-transitory computer-readable medium including one or more sequences of instructions which, when executed by the one or more processors, cause the one or more processors to perform a method comprising:

receiving, at a first time, an input defining a specified time period on a mobile device, wherein:

the specified time period comprises a start time and an end time,

the first time is before the start time,

the mobile device is configured to generate a notification in response to detecting a notification event, the notification comprising sound, light, movement or a combination thereof,

the specified time period is associated with a restricted-notification mode in which the generation of notifications at the mobile device in response to detected notification events is restricted, and

the restricted-notification mode is associated with a location;

while a plurality of restricted-notification mode criteria are met, including a criterion that is met when a current time at the mobile device is within the specified time period, and a criterion that is met when the mobile device is at the location associated with the restricted notification mode, such that the mobile device is in the restricted notification mode, detecting a notification event on the mobile device;

in response to detecting the notification event on the mobile device:

determining whether, during the restricted-notification mode and before detecting the notification event, the mobile device initiated a communication with a person associated with the notification event;

in accordance with a determination that the mobile device, during the restricted-notification mode and before detecting the notification event, did not initiate the communication with the person associated with the notification event, preventing the mobile device from generating the notification in response to detecting the notification event; and

in accordance with a determination that the mobile device, during the restricted-notification mode and before detecting the notification event, initiated the communication with the person associated with the notification event, generating the notification in response to detecting the notification event.

18. The system of claim **17**, wherein

the communication with the person associated with the notification event comprises a phone call, a text message or an email initiated by the mobile device to the person.

19. The system of claim **17**, wherein

the notification event comprises a reply communication, from the person associated with the communication event, to the communication initiated from the mobile device.

20. The system of claim **17**, wherein generating the notification in response to detecting the notification event comprises:

in accordance with a determination that the notification event was detected within a time threshold of the communication initiated with the person associated with the notification event, generating the notification in response to detecting the notification event; and

in accordance with a determination that the notification event was not detected within the time threshold of the communication initiated with the person associated with the notification event, preventing the mobile device from generating the notification in response to detecting the notification event.

21. The system of claim **20**, wherein

the time threshold is user-specified.

22. The system of claim **17**, wherein the mobile device is in the restricted-notification mode in accordance with a determination that the restricted-notification mode criteria are met, the method further comprising:

in response to detecting the notification event on the mobile device, in accordance with a determination that the restricted-notification mode criteria are met and that the mobile device was in use when the notification event was detected, exiting the restricted-notification mode and generating the notification in response to detecting the notification event.

23. The system of claim **17**, wherein the mobile device is in the restricted-notification mode in accordance with a determination that the restricted-notification mode criteria are met, the restricted-notification mode criteria at least partially automatically determined based on mobile device use patterns detected by the mobile device.

24. The system of claim **17**, wherein the method further comprises:

while the restricted-notification mode criteria are not met such that the mobile device is not in the restricted notification mode, detecting a second notification event on the mobile device; and

in response to detecting the second notification event on the mobile device, generating the notification on the mobile device.

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